

AMENDMENTS

Listing of Claims:

The following listing of claims replaces all previous listings or versions thereof:

1-6 (Canceled)

7. (Currently amended) A transgenic fish comprising a chimeric gene comprising the ~~promoter of claim 1, 2, 3 or 4.~~a zebrafish cytokeratin gene promoter which is capable of directing a structural gene to be predominantly expressed in skin epithelia when it is inserted in front of the structural gene and introduced into fish embryos, a zebrafish muscle creatine kinase gene promoter which is capable of directing a structural gene to be specifically expressed in muscles when it is inserted in front of the structural gene and introduced into fish embryos, a zebrafish fast skeletal muscle isoform of myosin light chain 2 gene promoter which is capable of directing a structural gene to be predominantly expressed in skeletal muscles when it is inserted in front of the structural gene and introduced into fish embryos, or a zebrafish acidic ribosomal protein P0 gene promoter which is capable of directing a structural gene to be expressed ubiquitously in all tissues when it is inserted in front of the structural gene and introduced into fish embryos.

8. (Original) The transgenic fish of claim 7, which contains said promoter in germ cells and/or in somatic cells and which is capable of breeding with either a said transgenic fish or a non-transgenic fish to produce viable and fertile transgenic progeny.

9. (Previously Presented) The transgenic fish of claim 7, wherein said fish and progeny of said fish emit green fluorescence when the whole fish is exposed to a blue or ultraviolet light.

10. (Original) A transgenic fish comprising a DNA that encodes a fluorescent protein under control of a promoter that causes said DNA (1) to be expressed in predominately skin epithelia, (2) to be specifically expressed in muscles, (3) to be predominantly expressed in skeletal muscles, or (4) to be expressed ubiquitously in all tissues.

11. (Original) The transgenic fish of claim 8, wherein said fluorescent protein is expressed a level sufficient that said fish fluoresces upon exposure to sunlight.

12. (Cancelled)

13. (Original) The transgenic fish of claim 10, wherein said promoter is a promoter which naturally occurs in the genome of a fish of the same species as the transgenic fish.

14.-15. (Cancelled)

16. (Currently amended) A transgenic fish comprising a chimeric gene in turn comprising a promoter DNA that hybridizes under ~~stringent conditions~~ salt and temperature conditions providing stringency equivalent to 5 x SSC and 42 degrees centigrade to a polynucleotide of any one of SEQ ID NOS:7, 8, 9, or 22, operatively linked to a structural gene encoding a fluorescent or a chemiluminescent protein.

17.-18 (Canceled)

19. (Previously Presented) The transgenic fish of claim 10, further defined as an ornamental fish for the ornamental fish market, which contains said promoter in germ cells and/or in somatic cells and which is capable of breeding with either a said transgenic fish or a non-transgenic fish to produce viable and fertile transgenic progeny.

20. (Previously Presented) The transgenic fish of claim 10, wherein said fish and progeny of said fish emits green fluorescence when the whole fish is exposed to a blue or ultraviolet light.

21. (Previously Presented) The transgenic fish of claim 10, wherein said fluorescent protein is expressed a level sufficient that said fish fluoresces upon exposure to sunlight.

22. (New) The transgenic fish of claim 7, wherein the fish comprises a zebrafish cytokeratin gene promoter which is capable of directing a structural gene to be predominantly expressed in skin epithelia when it is inserted in front of the structural gene and introduced into fish embryos.
23. (New) The transgenic fish of claim 7, wherein the fish comprises a zebrafish muscle creatine kinase gene promoter which is capable of directing a structural gene to be specifically expressed in muscles when it is inserted in front of the structural gene and introduced into fish embryos.
24. (New) The transgenic fish of claim 7, wherein the fish comprises a zebrafish fast skeletal muscle isoform of myosin light chain 2 gene promoter which is capable of directing a structural gene to be predominantly expressed in skeletal muscles when it is inserted in front of the structural gene and introduced into fish embryos.
25. (New) The transgenic fish of claim 7, wherein the fish comprises a zebrafish acidic ribosomal protein P0 gene promoter which is capable of directing a structural gene to be expressed ubiquitously in all tissues when it is inserted in front of the structural gene and introduced into fish embryos.
26. (New) The transgenic fish of claim 13, wherein the promoter is one that causes said DNA to be expressed in predominately skin epithelia.
27. (New) The transgenic fish of claim 13, wherein the promoter is one that causes said DNA to be specifically expressed in muscles
28. (New) The transgenic fish of claim 13, wherein the promoter is one that causes said DNA to be predominantly expressed in skeletal muscles.
29. (New) The transgenic fish of claim 13, wherein the promoter is one that causes said DNA to be expressed ubiquitously in all tissues.